

Seminario

Miércoles 30 de Mayo, 2018, 11 hrs (PST), Auditorio IA-Ensenada

Are stellar clustering properties primordial?

Clues from extinction maps



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We present our study of infrared column density maps that compare distinct regimes of star formation in nearby Giant Molecular Clouds: the almost negligible production of the Pipe Nebula versus the bookcase cluster formation in Orion A. We identify individual column density peaks, characterize their basic physical properties (mass, radii, mean densities, associated dust temperatures) and make a comparative analysis. Then, we present our study of the spatial distribution of column density peaks in both regimes. Using the Mean Surface Density of Companions we study the uniformity of fragmentation across spatial scales and, by means of a Minimum Spanning Tree analysis (Alfaro & Román-Zúñiga 2018 in press) we discuss how clustering, including mass and density segregation may proceed from primordial stages.